Amendments to the Specification:

Please replace paragraphs 0006, **0010** with the following amended paragraphs, the amended additions being indicated in **underlined bold**:

--[0006] The known method for EO modulator fabrication is use of commercial NCAP (nematic curvilinear aligned phase) material in which PDLC is sandwiched between two layers of ITO Mylar® **polyester** film. The conventional manufacturing process involves lamination of a film to a laminate of NCAP. Two patents, assigned to Photon Dynamics, Inc., describe such processes: --

--[0010] Concurrent techniques under development involve the lamination of a polyester film having a mirror coating onto a layer of light sensitive but volatile material **and spin coating processes**. (See U.S. Patent Application **10/685,687** filed concurrently entitled METHOD FOR FABRICATING ELECTRO-OPTIC LIGHT MODULATOR in the names of Xianhai Chen, David Baldwin, and Alexander Nagy, ~~Townsend and Townsend and Crew Docket No. 14116-81.00US~~ **and U.S. Patent Application 10/686,367 filed concurrently entitled METHOD FOR MANUFACTURING PDLC-BASED ELECTRO-OPTIC MODULATOR USING SPIN COATING in the name of Chen and Nagy**). While the mirror surface directly engages the light sensitive material, representing an improvement over prior art techniques, the assembly process is subject to human-introduced errors such as wrinkling of the pellicle, nonuniform adhesion, capture of dust particles and creation of bumps at the time of assembly. What is needed is a structure and a technique to allow direct vacuum coating of materials, thus eliminating the film lamination process.--

--[0017] In an optical element application, ~~a,~~ EO modulator 10 has at least two pairs 1, 2 of thin dielectric materials 12, 14, 16, 18 of alternately high and low index of refraction overlay a stress-absorptive polymeric adhesive layer 3. The polymer adhesive layer 3 has distinct characteristics as will be explained. The pairs 1, 2, which are not shown to scale, are bonded via the stress-absorptive polymeric adhesive layer 3 on a layer of volatile gelatinous material 4, specifically in an optical application, polymer dispersed liquid crystal (PDLC), which serves as the sensor material 4. The sensor material 4 rests on an optional layer of silicon dioxide 5. Thereunder is a layer of a transparent electrode material 6, such as indium tin oxide (ITO) which in turn is formed on an optical glass substrate 7, which is for example type BK-7 glass. The glass substrate 7 is a plate or solid optically flat sheet which has an antireflective coating 8 on the optically-smooth surface opposing the surface carrying the sensor material 4.

[0018] The stress absorptive polymer adhesive layer 3 is a critical element in the manufacturing of the device 10. Materials known to be suitable are water-based adhesives. They must be able to coat over the gelatinous sensor material 4 without damaging the sensor material surface. They must be able to cure to a state where they both retain integrity and are substantially impermeable. Suitable materials include polyurethane dispersions such as Neorez brand R-967 manufactured by Neoresins of Wilmington, Massachusetts, acrylate dispersions, and waterborne epoxies. The adhesives must be water based to be compatible with the sensor material, and they contain for example dispersions of silica (SiO_2) or other low refractive index dielectric nanoparticles that are not chemically reactive and which help in the hardening of the adhesive layer 3.--

--[0021] 2) Volatile material coating: The volatile material, which in this case is a sensor material, is applied over the electrode 6 and optional layer 7 (Step C). The invention may be used with any volatile material suitable for coating and in need of some protection against a vacuum. In the present use, however, the material is gelatinous and has an electro-optical response. The preferred material includes polymer dispersed liquid crystal (PDLC), which is typically 60-70% liquid crystal, and the remainder is a neutral binder or thickening material such as i) TL-205/AU1033 **type liquid crystal/thickening agent combination**; ii) TL-205/PMMA **type liquid crystal/poly(methyl methacrylate) binder combination**; ii) E7 **type** poly(methyl methacrylate) (PMMA) ; or iv) E7/AU-1033 **type liquid crystal/thickening agent**

combination. In the fabrication process, the coating processes useful are doctor blade, wired bar, slot die, spin, and meniscus. Spin coating is preferred.

[0022] 3) Edge cleaning: Thereafter, depending on the coating method, edge cleaning might be needed (Step D). It is preferred to use a plastic 'knife' (such as Mylar® **polyester** sheet not shown) to remove the edge without damaging the ITO coating.--

--[0031] The barrier adhesive layer comprises a composition of de-ionized water, surfactant, poylyurethane and silica nano-particles in suspension. In a specific mix, de-ionized water has added to it the surfactant, such as Silwet L-7608, Silwet 7650, **or** Silwet 7680 **surfactants** (Witco Products), which acts to assist in spreading the material on the target surface; also polyurethane, such as Neorez brand #R-967, R-960, and R-9649 **polyurethanes** (Neoresins, Inc. of Wilmington, Massachusetts); and a water-based suspension of silica nano-particles that serve as the hardening agent, such as Snowtex brand ST-50, ST-C or the like **silica solutions** (U.S. source: Nissan Chemical America Corporation of Houston, Texas). --

--[0034] The optimum composition for applications involving deposition on PDLC is: Water 4gm + L-7608 0.142gm + R-967 4gm + ST-50 **silica solution** 10gm. The composition is a colloidal suspension that is strongly dependent on its cure and interaction with the polymer matrix and liquid and liquid crystal content of the receiving layer. --